

Applicant : Aaron Markworth
Serial No. : 10/825,962
Filed : April 16, 2004
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Attorney's Docket No.: 17116-003001

Amendments to the Drawings:

The attached eleven replacement sheets of drawings replace the original sheets of drawings, including Figs. 1A through Fig. 7. No new matter has been added.

Attachments following last page of this Amendment:

Replacement Sheet (11 pages)

REMARKS

Claims 1, 2 and 4-44 are pending. Claims 37-39 were previously withdrawn. Claim 3 is canceled. Claims 1, 2, 4, 13, 15, 23, 30-34, 40 and 44 are amended. No new matter is added. Claims 1, 2, 12 and 15 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 of U.S. Patent Application No. 11/027,501. Claims 1, 2, 4-6, 10-23 and 40-44 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Publication 2003/0032957 ("McKinley"). Claims 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,887,241 ("McBride"). Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinley. Claims 31-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinley in view of McBride. The applicant respectfully traverses the rejections and requests reconsideration in view of the amendments and remarks herein.

I. Drawings

In response to the Examiner's objections to the drawings, replacement drawings are included herein.

II. Double Patenting Rejections

The Examiner rejected claims 1, 2, 12 and 15 under 35 U.S.C. 101 as claiming the same invention as that of claims 1-4 of "prior" U.S. Patent Application No. 11/027,501. First, the applicant draws to the Examiner's attention that U.S. Patent Application No. 11/027,501 is still pending and accordingly, the double patenting rejection ought to have been framed as a *provisional* double patenting rejection since the conflicting claims have not in fact been patented. Second, the applicant draws to the Examiner's attention that U.S. Patent Application No. 11/027,501 was actually *filed after* the current application. The current application was filed on April 16, 2004; whereas Application No. 11/027,501 was filed on December 30, 2004. Accordingly, Application No. 11/027,501 is not a "prior" application as alleged and does not properly form a basis for a double patenting rejection in the present case.

Third, the applicant has amended claims 1, 2, 12 and 15 herein, and respectfully submits that in any event the claims as amended do not claim the same invention as claims 1-4 recited in Application No. 11/027,501. Accordingly, the applicant respectfully requests that the double patenting rejection be withdrawn.

III. 102(b) McKinley Rejections

Claims 1, 2, 4-6, 10-23 and 40-44 are rejected under 35 U.S.C. 102(b) as being anticipated by McKinley.

Claims 1, 2, 4-6 and 10-23

Claim 1, as amended, reads as follows:

1. A medical device for supporting a structure comprising:
 - a screw assembly, the screw assembly including
 - a base,
 - an arm, and
 - an interconnection means for coupling the base to the arm, the interconnection means allowing the arm to be positionable in a first position that is parallel to a long axis of the base and positionable in a second position that is perpendicular to the long axis of the base,
 - where the base is configured for attachment to a first structure in a patient and the arm is configured for attachment to a support structure; and
 - the support structure, comprising
 - a support element configured to support a second structure in the patient,
 - at least one receiver included in the support element and configured to receive the arm of the screw assembly, and
 - a locking mechanism configured to lock the arm to the support element.

The medical device recited in claim 1 includes both a screw assembly and a support structure. The support structure locks to the arm of the screw assembly. The screw assembly attaches to a first structure (e.g., bone) in a patient. The applicant respectfully submits that McKinley does not disclose all of the elements recited in claim 1.

The Examiner asserts that McKinley discloses a screw assembly, where the arm is element 56 shown in McKinley's Fig. 1 and the base is element 22. The Examiner further

asserts that element 44 is the support structure recited in claim 1. The applicant respectfully submits that McKinley does not disclose a support structure as required by claim 1, and that element 44 in particular does not satisfy the recited limitations of the support structure. The support structure recited in claim 1 is configured to support a second structure in a patient. By way of illustrative example, and without limiting the scope of the claim, the applicant refers the Examiner to the applicant's Fig. 3B, where one implementation of a support structure 10 is shown supporting a human vertebrae. Further, claim 1 requires the support structure include a receiver to receive the arm of the screw assembly and a locking mechanism to lock the arm to the support structure.

Element 44 shown in McKinley is not configured to support a structure in a patient. Further, there is no disclosure of this element "receiving" McKinley's "arm" (i.e., element 56), nor a locking mechanism to lock these elements together. Rather, it would appear that element 44 is merely a lower surface of an integrally formed U-shaped component that includes elements 56 and 54 forming the upright components of the "U" and element 44 forming the lower component of the U. There is no indication in McKinley that these are separate components that are locked to one another in any fashion. By contrast, the elements combined are described as a "coupling element 14".

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). The applicant respectfully submits that as McKinley does not disclose a support structure as recited in claim 1, the claim is not anticipated. Claims 2, 4-6 and 10-23 depend from claim 1 and are therefore allowable for at least the same reasons. Claims 7-9, which stand rejected as being obvious in view of McKinley, also depend from claim 1 and are therefore allowable for at least the same reasons as claim 1.

Claims 40-44

Claim 40, as amended, recites a medical device support structure as follows:

40. A medical device support structure comprising:
an anchor having a distal end and a proximal end,

a receiver positioned at the proximal end of the anchor and fixed in position relative to the anchor; and
a locking means;
wherein the anchor is configured for attachment to a structure in a patient;
wherein the receiver includes an opening configured for attachment to a medical device; and
wherein the locking means is configured to lock the medical device to the support structure, after the support structure has been deployed in a patient.

The applicant respectfully submits that McKinley does not disclose the support structure recited in claim 40. The Examiner asserts that McKinley's element 22 of FIG. 2A is the anchor recited in claim 40. The Examiner further asserts that the U-shaped channel, referred to by the Examiner in the figure copied into the office action at page 4 as a "saddle-type receiver" discloses the receiver recited in claim 40. The applicant respectfully disagrees that the saddle-type receiver referred to by the Examiner satisfies the limitation of claim 40. Claim 40 requires a receiver that is fixed in position relative to the anchor. By contrast, McKinley's coupling element 14, which includes the saddle-type receiver, can move relative to the anchor. That is, the anchor can rotate 90 degrees relative to the coupling element 14. Accordingly, the saddle type receiver is not fixed in position relative to the anchor.

Further, the receiver recited in claim 40 is configured for attachment to a medical device. By way of illustrative example, and without limiting the scope of claim 40, one example of an implementation of a support structure is shown in the applicant's Fig. 4 as element 10. The receiver (near element 9) is configured to receive a medical device 12. In this example, the medical device is a screw, for example, a pedicle screw. By contrast, the saddle-back receiver shown in McKinley receives a rod 60 that can be pressed against the head portion 18 of the anchor to prevent the coupling unit 14 from moving relative to the screw 12; the rod 60 is not a medical device (see McKinley, para [0040]).

Accordingly, the applicant respectfully submits that the support structure recited in claim 40 is not anticipated by McKinley for at least the above reasons. Claims 41-44 depend from claim 40 and are therefore allowable for at least the same reasons.

IV. 102(e) McBride Rejections

Claims 24-29 are rejected under 35 U.S.C. 102(e) as being anticipated by McBride. Claim 24 is amended to recite a “hinged-claw having a threaded hinge-engagement member and nut disposed on a top surface of the medical device support structure”. The applicant respectfully submits that McBride does not disclose such a hinged-claw and threaded hinge-engagement member. The limitation added to claim 24 was taken from claim 30, which the Examiner previously found to include allowable subject matter. The applicant respectfully submits claim 24 is in condition for allowance. Claims 25-29 and 31-36 depend from claim 24, and are therefore allowable for at least the same reasons.

V. Allowable Subject Matter

The Examiner indicated that claim 30 included allowable subject matter and would be allowable if rewritten in independent form. Claim 30 is amended to delete a limitation that has been added into the base claim 24. The applicant respectfully submits that as the base claim 24 is in condition for allowance for at least the reasons stated above, claim 30 is also allowable.

By responding in the foregoing remarks only to particular positions taken by the examiner, the applicant does not acquiesce with other positions that have not been explicitly addressed. In addition, the applicant's arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

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Please deduct \$120 from Deposit Account No. 06-1050 for the Petition for One-Month Extension of Time fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: October 9, 2007 _____

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